ATTACHMENT 1

TWELVE CIRCUIT BASE STATION

COST ESTIMATE

TRANSMITTER SITE SUB-TOTAL	$ 753,442
RECEIVER SITE SUB-TOTAL	$ 481,348
TELETYPE EQUIPMENT SUB-TOTAL	$ 105,364
SUB-TOTAL ABOVE ITEMS	$1,340,154
EQUIPMENT AVAILABLE IN STOCK	$ 254,180
COST FOR ADDITIONAL STOCK LEVEL	$1,085,974
LESS REFUND 51S RECEIVER	$ 81,000
BULK STOCK TOTAL INCREASE LEVEL	$1,004,974

TRANSMITTER SITE

Conical monopole Antenna, Collins 437C-3A	@$3,454	3 ea.	$10,362
Horizontal Log Antenna, TCI 524-3-04	@$15,160	2 ea.	$30,320
Vertical Log Antenna, Granger 747V-29	@$12,690	2 ea.	$25,380
Horizontal Log Dipole Antenna, TCI 518-2-03	@$8,106	2 ea.	$16,212
Horizontal Log Rotatable Antenna, Collins 237B-3	@$10,448	2 ea.	$20,896
Nested Rhombic Antenna, Penn-Tech 6-12/12-24 MHz	@$18,000	1 ea.	$18,000
Antenna/Transmitter Coaxial Switch, Delta SLS-1	@$6,720	2 ea.	$13,440
Amplifier, Collins 208U-10	@$21,079	12 ea.	$252,948
Modulator/Exciter, Gates SG-75A	@$7,302	12 ea.	$87,624
Remote Control Unit, f/u/w SG-75A	@$11,442	1 ea.	$11,442
Remote Control Module	@$1,114	12 ea.	$13,356
UHF System, Hot Standby, w/6 Receive and 1 Transmit VCU's	@$18,000	1 ea.	$18,000
Keyer Shelf, w/18 W.B. Keyers, NRC-221	@$3,300	1 ea.	$3,300
Converter Shelf, w/9 N.B. Converters, NRC-222	@$2,475	4 ea.	$9,900
Rack, Electrical Equipment, ER-3	@$315	16 ea.	$5,040
Receiver, Radio, Monitor, Collins 651S-1	@$4,866	1 ea.	$4,866
Cable, Coaxial, 1 5/8" Air Dielectric	@$2.00/ft.	20,000 ft.	$40,000
Miscellaneous Items, such as Patch Panels, Wire and Cable, etc.	@$10,000	1 ea.	$10,000
Generator System, 3 ea. 250 KW w/Switchgear	@$162,338	1 ea.	$162,338
		Sub-Total	$753,442

RECEIVER SITE

Conical Monopole Antenna, Collins 437C-3A	@$3,454	1 ea.	$3,454
Horizontal Log Antenna, TCI 524-2-03	@$12,000	2 ea.	$24,000
Vertical Log Antenna, Granger 747V-29	@$12,690	2 ea.	$25,380
Horizontal Log Rotatable Antenna, Collins 237B-3	@$10,448	2 ea.	$20,896
Nested Rhombic Antenna, Penn-Tech 6-12/12-24 Mhz.	@$14,000	1 ea.	$14,000
Receiver, Radio, General Purpose, Collins 651S-1	@$4,866	26 ea.	$126,516
Converter, Frequency Shift, FEC 1203	@$1,058	20 ea.	$21,160
Display Unit, FEC 1251	@$888	3 ea.	$2,664
Keyer Shelf, w/12 N.B. Keyers	@$2,000	2 ea.	$4,000
Keyer Shelf, w/16 N.B. Keyers	@$3,000	2 ea.	$6,000
Converter Shelf, w/ 6 N.B. Converters and 3 Combiners	@$2,475	4 ea.	$9,900
Rack, Electrical Equipment, ER-3	@$315	16 ea.	$5,040
Cable, Coaxial, 7/8" Air Dielectric	@$1.50/ft.	12,000 ft.	$18,000
Miscellaneous Items such as Multicouplers, Patch Panels, Wire and Cable, etc.	$20,000	1 ea.	$20,000
Generator System, 3 ea. 250 KW w/Switchgear	@$162,338	1 ea.	$162,338
UHF System, Hot Standby, w/6 Transmit and 1 Receive VCU's	@$18,000	1 ea.	$18,000
		Sub-Total	$481,348

TELETYPE EQUIPMENT

Transmit Cabinet, 6 Circuit, BCS-1	@$9,435	2 ea.	$18,870
Receive Cabinet, 6 Circuit, BCS-2	@$5,050	3 ea.	$15,150
Monitor Cabinet, 6 Circuit, BCS-3	@$6,424	2 ea.	$12,848
Printer Cabinet, 3 Circuit, BCS-4	@$5,192	3 ea.	$15,576
ASR, BCS-7	@$3,768	3 ea.	$11,304
Printer, Skintight, BCS-10	@$1,878	4 ea.	$7,512
TD, BCS-12	@$283	2 ea.	$566
HW-28, BCS-13	@$6,769	2 ea.	$13,538
Miscellaneous Items, such as Patch Panels, Power Supplies, Filters, etc.	@$10,000	1 ea.	$10,000
		Sub-Total	$105,364

8-PAC UPGRADING

TRANSMITTER VAN	$107,311
RECEIVER VAN	$185,118
COMMUNICATIONS CENTER VAN	$ 7,000
POWER TRAILERS	$ 2,000
TRANSPORTER	$ 1,000
CONTRACTOR COST	$ 25,000
TOTAL --	$327,429
REFUND FOR 54 EACH 51S-1 RECEIVERS	$ 81,000
GRAND TOTAL --	$246,429
EQUIPMENT IN STOCK	$ 38,170
FUNDS & BULK STOCK REQUIRED	$208,259
ORIGINAL COST 8-PAC	$723,636

TRANSMITTER VAN

Modulator/Exciter, SG-75A	@$7,302	12 ea.	$87,624
SG-75A Spare Parts Board Kit	@$3,800	1 ea.	$3,800
Receiver, Radio, Monitor, Collins 651S-1	@$4,866	1 ea.	$4,866
Keyer Shelf, w/18 W.B. Keyers NRC-221	@$3,300	1 ea.	$3,300
Patch Panel, R.F., JS-48L/J3	@$221	1 ea.	$221
Miscellaneous Items, such as mounting VRA-6, Wire and Cable, etc.	@$5,000	1 ea.	$5,000
Repairs to shelter	@$2,500	1 ea.	$2,500
		Sub-Total	$107,311

8-PAC

Communications Center Van

Miscellaneous items, such as removal of equipments, rewiring and general clean-up.	$2,000	1 ea.	$2,000
Repairs to shelter	$5,000	1 ea.	$5,000
		Sub-Total	$7,000

8-PAC

RECEIVER VAN

Receiver, Radio, General Purpose, Collins 651S-1	@$4,866	22 ea.	$107,052
651S-1 Spare Board Kit	@$3,800	2 ea.	$7,600
Receiver, Radio, General Purpose, FEC 1500B	@$1,116	4 ea.	$4,464
Synthesizer, f/u/w 1500B Receiver, FEC 1550	@$1,394	2 ea.	$2,788
Converter, Frequency Shift, FEC 1203	@$1,058	20 ea.	$21,160
Display Unit, FEC 1251	$888	3 ea.	$2,664
Vertical Antenna, HFAS-9A	@$1,890	1 ea.	$1,890
Receiving Position, PD-2	@$25,000	1 ea.	$25,000
Miscellaneous Items, such as Patch Panels, Power Supplies, Wire and Cable, etc.	@$10,000	1 ea.	$10,000
Repairs to shelter	@$2,500	1 ea.	$2,500
		Sub-Total	$185,118

ATTACHMENT 3

TEST EQUIPMENT WORKING GROUP STANDARD OPERATING PROCEDURES

I. MISSION

A. The OC Test Equipment Working Group (TEWG) is responsible to the Office of Communications Equipment Board for the following:

1. Review test equipment requirements levied by OC Divisions and Staffs with a view to achieving commonality in the areas of standardization, procurement, usage, maintenance, training, and general support.

2. Submitting to the OC Equipment Board documentation relating to:

a. Standardization of new test equipment.

b. Selection of an improved version or extended capability model of a present standard.

c. Technical justification for any additions or deletions in the Test Instrumentation Standards Manual.

d. Materiel classification of new and revised standard test equipment.

e. Materiel reclassification of test equipment being replaced.

f. Procurement recommendations.

II. ORGANIZATION

A. TEWG will consist of one voting member each from OC-SCD, OC-SPD, and OC-CCD plus a (non-voting) representative of the staff network equipment programming function of OC-SCD. The chairman shall be appointed by the OC Equipment Board.

The other members shall be selected by the Chiefs of the participating Divisions.

B. Non-voting participants to the Working Group may be invited by the chairman to participate, if necessary, for advice and consultation.

C. Alternate members may be assigned to the Working Group by the participating divisions.

III. PROCEDURES

A. In order that the TEWG may meet its mission responsibilities, the following procedures will be used:

1. OC Divisions and Staffs requiring any type of test equipment will refer to the current Test Instrumentation Standards Manual to determine if the equipment is on the Standards List.

2. In the event test equipment requirements cannot be satisfied from the current Test Instrumentation Manual, a description of the requirement and suggested test equipment shall be submitted to the TEWG for review and recommendations.

3. When a test equipment requirement exists where there is no standard, the TEWG is authorized to task appropriate OC components through the Equipment Board with performing a technical/operational evaluation. This evaluation will determine the equipment's suitability for the requirement and possible inclusion as a standard.

4. Limited quantity, highly specialized test equipment, which will be used only at a single location such as the OC-CCD/LAB or OC-SPD/CEN will be exempt from TEWG review. However, it will be the responsibility of the above groups to coordinate the purchase of any test equipment with TEWG prior to initiating procurement action. This information will enable the TEWG to compile data necessary to provide possible changes in standards and for future planning.